

U.S. Patent Application Serial No. **10/501,331**
Amendment filed April 6, 2010
Reply to OA dated December 9, 2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A disk apparatus that ~~performs information reproduction~~ calculates optimal reproduction laser power by irradiating a laser beam onto data zones of a disk recording medium ~~rotated in a CAV system~~, comprising:

a determiner for determining a reference reproduction laser power value by subjecting said disk recording medium to a test writing and a test reading at a first reference linear velocity;

a specifier for specifying a current linear velocity coefficient on the basis of a current ambient temperature of said disk recording medium and a current linear velocity at a ~~portion~~ data zone to which said laser beam is currently irradiated,

wherein said specifier updates said current linear velocity coefficient by use of a condition relating to the ambient temperature and linear velocity at a specific data zone; and

a calculator for calculating an optimal reproduction laser power value obtained by multiplying the reference reproduction laser power value determined by said determiner by the ~~optimal~~ current linear velocity coefficient specified by said specifier, ~~wherein,~~

~~said specifier specifies said linear velocity coefficient by use of a first relational expression indicative of a relationship between the ambient temperature of said disk recording medium at a second reference linear velocity and a linear velocity coefficient, and a second relational expression indicative of a relationship between said linear velocity coefficient and said current linear velocity.~~

Claims 2-3 (Canceled)

Claim 4 (Previously Presented): A disk apparatus according to claim 1, wherein said reference reproduction laser power value is obtained by adding a predetermined proportion of a lower limit reproducible laser power value by which said disk recording medium can be reproduced at least to said lower limit reproducible laser power value.

Claim 5 (Previously Presented): A disk apparatus according to claim 1, wherein said reference reproduction laser power value is obtained by subtracting a predetermined proportion of an upper limit reproducible laser power value by which said disk recording medium can be reproduced at most from said upper limit reproducible laser power value.

Claim 6 (Currently Amended): A disk apparatus according to claim 1, wherein said ~~first~~ reference linear velocity at said specific data zone is a linear velocity ~~[[of]]~~ at an innermost data zone periphery ~~in a ZCAV system~~.

Claim 7 (Currently Amended): A disk apparatus according to claim 1, wherein said ~~second~~ reference linear velocity at said specific data zone is a linear velocity ~~[[of]]~~ at an outermost data zone periphery ~~in the ZCAV system~~.

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Claim 8 (Currently Amended): A disk apparatus according to claim 1, wherein said first condition relates to ~~relational expression is an expression for decreasing a decrease in~~ a value of said linear velocity coefficient as said ambient temperature increases.